SUPERFUND PRELIMINARY CLOSE OUT REPORT
Metal Bank Superfund Site
Philadelphia County, Pennsylvania
EPA ID# PAD046557096

I. INTRODUCTION

This Preliminary Close Out Report (PCOR) documents that construction activities at the Metal Bank Superfund Site (Site) were completed in accordance with the *Close-Out Procedures for National Priorities List Sites* (OSWER Directive 9320.2-09A-P, January 2000).

The U.S. Environmental Protection Agency (EPA) and the Pennsylvania Department of Environmental Protection (PADEP), conducted a pre-final inspection on January 20, 2010 and determined that the potentially responsible parties (PRPs) constructed the remedy in accordance with approved design plans and specifications. Additional construction activities are not anticipated. The PRPs have initiated activities necessary to achieve performance standards and site completion.

II. SUMMARY OF SITE CONDITIONS

Background

The Metal Bank Superfund Site is a former scrap metal and transformer salvage facility located at 7301 Milnor Street in an industrial area of northeastern Philadelphia, Pennsylvania. The Site is bordered by Cottman Avenue on the west; Milnor Street on the north; Safe Disposal Systems (an appliance recycling company) and Morris Iron & Steel Company (ametal salvage yard) on the east; and the Delaware River on the south. To the west of Cottman Avenue is St. Vincent's School, which was a day care center and a temporary shelter for abused children. A stormwater outfall owned by the City of Philadelphia at the southern end of Cottman Avenue empties into a mudflat area west of the Metal Bank property. The Quaker City Yacht Club is located west of the mudflat. A Philadelphia drinking water intake and associated treatment plant are located 2.2 miles upriver from the Site.

The Metal Bank property includes two areas: the southern area which consists of approximately six acres of open area that was used for scrap metal recovery; and the northern area which consists of one vacant steel building, concrete footings for six buildings, a courtyard, and a parking area. The building is locked and a 6-foot fence is maintained around the entire Site.

Operational History

Approximately 15 feet of fill from unknown origins was gradually placed in the Delaware River to create the southern portion of the property between 1950 and 1967. Beginning in 1962, the Site was used for scrap metal storage. From approximately 1968 or 1969 until 1973, transformer salvage operations were conducted at the Site. Transformer oil was drained on a concrete pad which was connected to an underground storage tank. Spills of the oil and possibly a rupture of the underground storage tank caused soil and groundwater contamination at the Site. Between 1968 and 1972, copper wire may have been burned at this Site to remove insulation. From 1973 to 1985, storage of scrap metal continued at the Site, but no transformer salvage operations have been conducted since 1973.

L. Goldstein's Sons, Inc. ("Goldstein's") purchased the Site from H.K. Porter in October of 1962. In the mid-1960's, Goldstein's changed its name to The Metal Bank of America, Inc. On December 4, 1968, Metal Bank of America, Inc. entered into an agreement to sell its assets (except for its properties at Cottman Avenue and New State Road) to The Union Corporation ("Union Corporation"). Union Corporation incorporated MBA, Inc. on December 9, 1968, and assigned its rights under the asset purchase agreement to MBA, Inc. The Metal Bank of America, Inc. liquidated in March of 1969, and its property, including the Site, was distributed to its shareholders, Irvin and John Schorsch. After the liquidation of the "old" Metal Bank of America, Inc., MBA, Inc. officially adopted that name ("Metal Bank") on December 7, 1971. Union Corporation leased the Site from the Schorsches for its subsidiary, the "new" Metal Bank, until 1980. In 1980, the Schorsches sold the Site and the New State Road property to the Philadelphia Authority for Industrial Development ("PAID"), and the Schorsches took back the mortgage. PAID and Metal Bank entered into a twenty year Installment Sale Agreement whereby Metal Bank purchased both the Site and the New State Road property. PAID assigned its rights to payment under this Agreement to the Schorsches. Metal Bank changed its name to U.C.O.-M.B.A. Corporation in June 1985. Although PAID holds the title to the Site properties, Metal Bank had full possession of the premises and was the equitable owner of the Site under the Installment Sale Agreement. In May 2003, the Schorsches filed a consolidated Chapter 11 bankruptcy action in the United States Bankruptcy Court for the Eastern District of Missouri. With the approval of the bankruptcy court, they agreed to a settlement which established, among other things, a substantial funding mechanism for the future remedy at the Site.

Portions of the buildings on the premises were leased to various tenants: Lincoln Van and Storage for eight to ten years, ending in 1985; an automobile body repair shop for four or five years until approximately 1983; and Pennsylvania Alternator and Generator Exchange for approximately one year, until 1983. During the 1970's, Reisher Ford stored new cars on the premises.

Enforcement Activities

1972 The United States Coast Guard ("USCG") investigated reports of oil seeps into the Delaware River and concluded that the Metal Bank property was the source. Analyses using available technology did not detect polychlorinated biphenyls ("PCBs") in the oil samples. Metal Bank of America, Inc. ("Metal Bank") performed various remedial actions based on USCG recommendations including cleaning up spilled oil and improving housekeeping. Metal Bank also reported that it had ceased all transformer salvaging activities.

1977 EPA retested samples collected by USCG in 1973 using new procedures. The new analyses disclosed the presence of PCBs at concentrations over 800 parts per million (ppm). The USCG, EPA, PADEP, the Army Corps of Engineers, the City of Philadelphia, the Fish and Wildlife Service, the National Oceanic and Atmospheric Administration ("NOAA"), the Delaware River Basin Commission ("DRBC"), and others inspected the Site. Following these inspections, EPA prepared recommendations for remediation of the PCB problem and requested that Metal Bank complete the work. Metal Bank rejected EPA's recommendation and elected instead to perform additional studies.

1980 EPA filed suit in the District Court for the Eastern District of Pennsylvania for injunctive relief and costs against Metal Bank under the Resource Conservation and Recovery Act ("RCRA") and the Toxic Substances Control Act ("TSCA"). During the litigation, Metal Bank's consultant designed a groundwater recovery and treatment system.

1981 Metal Bank reported to PADEP that the underground storage tank at the Site was drained, cleaned, and filled with concrete.

1983 EPA settled the suit with Metal Bank under a Stipulation that required Metal Bank to install and operate a groundwater recovery and treatment system until all recoverable oil was removed from the property. The system consisted of two recovery wells, several oil separation units, and several 55-gallon drums containing activated carbon to treat groundwater. The separated oily materials were collected in drums for disposal. The treated groundwater was discharged into the City of Philadelphia sanitary sewer system. The Site was placed on the National Priorities List based on a Hazard Ranking System ("HRS") score of 33.23 on September 8, 1983.

1987 In December, EPA sent letters to individuals and companies notifying them that they were Potentially Responsible Parties ("PRPs") under the Comprehensive Environmental

Response, Compensation and Liability Act of 1980 ("CERCLA"). EPA's allegations were based on invoices which indicate that the PRPs sent, either directly or through brokers, transformers and other electrical equipment to Metal Bank.

1989 On January 13th, Metal Bank notified EPA pursuant to the Stipulation that it intended to shut down the oil recovery system, stating that all recoverable oil had been removed. In March, EPA collected samples from monitoring wells on the property which showed the continued existence of PCB-contaminated oil floating on the uppermost aquifer. On April 1st, due to the concern that PCB oil may have been burned at the Site, EPA conducted dioxin soil sampling at St. Vincent's School. The soil samples did not demonstrate a health risk from dioxin. On June 12th, the Court denied as moot a motion by the United States seeking to prevent permanent shutdown of the recovery system, the United States having agreed in substance with an order proposed by Metal Bank extending the period for EPA to conduct sampling until August 15, 1989. Subsequently, the recovery wells were permanently closed and the oil recovery system was dismantled and removed. The area was covered with fill and vegetated. All buildings and exterior grounds are reportedly cleared of trash and debris and fences are repaired and are maintained by Metal Bank. In August, EPA measured groundwater elevations in each of the monitoring wells on the site to determine the thickness of the remaining oil layer. An oil layer of at least three inches was measured in some portions of the property.

1991 In June, EPA signed an Administrative Order by Consent with 10 PRPs to conduct a Remedial Investigation ("RI") and Feasibility Study ("FS"). The Site Owner declined to join the PRP Group which included the following utility companies: Baltimore Gas & Electric Co., Consolidated Edison Co. of NY, Delmarva Power & Light Co., Jersey Central Power & Light Co., Long Island Lighting Co., Metropolitan Edison Co., Philadelphia Electric Co., Potomac Electric Power Co., Public Service Electric & Gas Co., Virginia Electric & Power Co.

Remedial Construction Activities

EPA signed a Record of Decision (ROD) on December 31, 1997 which selected a remedy for the site. The ROD stated that the contamination that posed unacceptable risk at the Site is the PCB contamination which resulted from former recycling and disposal practices.

EPA's selected remedy for the site consisted of the following:

- Installation of an oil collection system consisting of a sheet pile wall around the southern and western perimeter of the property; interceptor trenches with oil-water separators and sump pumps, or similar collection devices, inside the wall to prevent oil from migrating

to the Delaware River; discharge of collected groundwater to the Delaware River in accordance with National Pollution Discharge Elimination System requirements; and offsite disposal of collected oil in accordance with RCRA and TSCA requirements;

- Installation of temporary cofferdams prior to soil/sediment excavation to minimize transport of contamination into the Delaware River;

- Excavation of contaminated soil within the Courtyard Area within two feet of the surface where PCB concentrations exceed 10 ppm; excavation of contaminated subsurface soil in the Southern Portion of the Metal Bank property where PCB concentrations exceed 25 ppm; excavation of contaminated sediments within 100 feet of the Metal Bank property and within four feet of the surface of the river bed; and excavation of sediments beyond 100 feet of the Metal Bank property which have PCB concentrations exceeding 1 ppm if determined by EPA to be appropriate and feasible.

- Disposal of contaminated soil and sediments that are not hazardous in the following manner: (1) if PCB concentrations are less than 25 ppm, backfill material on the Southern Portion of the property; (2) if PCB concentrations are between 25 and 50 ppm, dispose in a landfill permitted in accordance with the Resource Conservation and Recovery Act ("RCRA") Subtitle D or Pennsylvania Residual Waste Management Regulation requirements; or (3) if PCB concentrations are 50 ppm or greater, dispose at a Toxic Substances Control Act ("TSCA") landfill;

- Disposal of contaminated soils and sediments that are hazardous in the following manner: if PCB concentrations are less than 50 ppm, dispose at a facility in compliance with RCRA Subtitle C or Pennsylvania Hazardous Waste Management Regulations; or (2) if PCB concentrations are 50 ppm or greater, dispose at a TSCA landfill;

- Removal and disposal of the underground storage tank and its contents from the Southern Portion of the property;

- Backfilling of excavated areas in the Courtyard Area with clean soil, installation of a 12-inch soil cover over the entire Courtyard Area, and establishment of an erosion-resistant vegetative cover;

- Backfilling of excavated areas in the Southern Portion of the property with excavated soils and sediments with PCB concentrations less than 25 ppm, installation of a 24-inch soil cover over the entire Southern Portion, and establishment of an erosion-resistant vegetative cover;

- Restriction of access by installing and maintaining a fence around the perimeter of the Metal Bank property;

- Posting signs prohibiting consumption of fish caught in the Delaware River in the vicinity of the Site;

- Restrictions on the deed to the property to prevent future residential or agricultural use of the Site, use of the groundwater, and intrusive activities into the subsurface soils below the water table in the Southern Portion of the property;

- Additional investigation to determine whether dense non-aqueous phase liquids ("DNAPLs") are present at the Site and whether the storm sewer system in the vicinity of the Site is contaminated; and

- Monitoring of groundwater, the Delaware River, and the Baxter Water intake.

Two Explanations of Significant Difference (ESDs) were issued on September 27, 2000 and December 15, 2000 which changed the remedy by requiring:

- Excavation of LNAPL in lieu of oil collection system;
- Sheet Pile Wall Modifications;
- Excavation of sediments exceeding 1 ppm based on modified criteria;
- Elimination of cofferdam and use of turbidity curtains;
- Elimination of soil monitoring program and use of geotextile layer;
- Excavation of hot spot soils with PCB concentrations exceeding 25 ppm based on pre-defined areas;
- Collection and proper disposal of oil during the soil excavation; and
- Installation of the sheet pile wall limited to the area of the southern corner where LNAPL is present and where PCB soil contamination exceeds 25 ppm.

In September 2002, the Utility Group submitted a Final Design Report for remediation of the Site. EPA approved the Final Design in January 2003, but the remedy in the Final Design was not implemented due to the ongoing litigation. Following approval of the Final Design, additional Site data was collected. Analysis of the new data, together with the continued evaluation of remedial options, led the United States and the Utility Group to develop jointly a revised remedial plan. The revised remedial plan consists of the following components:

- Excavation of Courtyard area soils CY-1 and CY-2, and placement of a soil cap over the Courtyard area and former Buildings 2, 3, 4, 5 and 6;
- Power washing and surface coating of Courtyard Building 7;

- Installation of a sheet pile wall at the southwestern corner of the Site;
- Removal of the underground storage tank (UST) near the southwestern corner of the Site;
- Excavation of Southern Area "hot spots" SA-2, SA-3 and SA-4/5 and offsite disposal of those soils;
- Excavation of near-shore sediments with total PCBs greater than 1ppm;
- Capping of other sediment areas with total PCBs greater than 1 ppm;
- Pre- and post-construction monitoring; and
- Institutional controls.

The revised remedy was documented in a Consent Decree, which was entered by the Court on March 14, 2006. The Revised Remedial Design was approved by EPA in February 2008. The Remedial Action began July 7, 2008, with the mobilization of the construction contractor Tetratech EC to the Site. The contractor conducted the following remedial activities:

- Installed and maintained sediment erosion control features;
- Excavated and backfilled upland areas CY-1, CY-2, SA-2, SA-3 and SA-4/5;
- Removed and properly disposed of the Southern Area underground storage tank;
- Removed and properly disposed of an underground storage tank found in the Courtyard;
- Installed a portion of the sheet pile wall;
- Installed turbidity curtain and turbidity monitors in the Delaware River;
- Installed a portion of the central marine mattress in the Delaware River; and
- Power washed and surface coated Building 7.

During construction, there were numerous technical issues with implementing the approved design, most notably unauthorized discharges into the Delaware River in July 2008, August 2008, September 2008 and January 2009. The project schedule was delayed such that the contractor demobilized for the winter in February 2009. During winter shut-down, the PRPs replaced Tetratech EC with Sevenson Inc. to complete the construction.

A new workplan addendum was approved and Sevenson mobilized in July 2009, following the moratorium that restricts work in the Delaware River between March and June of each year. Sevenson Inc. conducted the following remedial activities:

- Installed and maintained sediment erosion control features;
- Completed the sheet pile wall;
- Installed a temporary sheet pile wall, turbidity curtain, sorbent oil boom, and turbidity monitors in the Delaware River;
- Excavated near-shore sediments and backfilled with geotextile and R-3 stone in the Delaware River;
- Installed marine mattresses and buttress stone in the Delaware River;

- Installed the LNAPL trench.
- Repaired cracks in the surface coated Building 7;
- Installed six monitoring wells in the Southern Area;
- Assessed and closed in place the underground storage tank found in the Courtyard near the trailers;
- Covered the Southern Area with geotextile and 24-inches of cover soil (with a total 48-inches in the E4 area);
- Covered the Courtyard with geotextile and 12-inches of cover soil; and
- Posted PCB warning signs along the Delaware River.

Since Tetratech EC backfilled SA-4/5 due to impending winter shut down, Sevenson Inc. installed the LNAPL trench in 2009. During the reuse/disposal characterization of the soils in the centerline of the trench, potential areas of additional contamination were identified adjacent to Test Pit 2 (unsaturated soil) and Test Pit 8 (saturated soil). The PRPs excavated the inland side of Test Pit 2 and provided side wall samples that were below 25 ppm. The PRPs also delineated the remaining areas with borings. Of these boring samples, only a single soil sample of 104 ppm PCBs on the river side of Test Pit 2 between the LNAPL trench and the sheet pile wall deadmen exceeded 25 ppm. Since this sample location was taken from the unsaturated zone, this contamination is unlikely to migrate. In addition, the sample location is in an area with limited access and is beneath geotextile and a two foot soil cover. Therefore, EPA determined that additional work was not required to address this location.

EPA and the State conducted a pre-final inspection on January 20, 2010. The inspection required the PRPs to develop a description and schedule for correcting minor construction contract items. The pre-final inspection yielded the following punch list items:

1. Repair eroded soil at the second drainage swale along the western side of the Site (near the mudflat area).

2. Consider/evaluate feasibility of planting shrubs or other erosion resistant vegetation in this area.

3. Install additional stakes in the erosion and sediment (E&S) control measures (coconut logs) installed in the former boat ramp area to the east of the eastern return of the sheet pile wall. Inspect all of the E&S measures and install additional stakes as necessary. Also, inspect E&S measures for erosion and/or undermining and repair as necessary.

4. Install E&S measure, preferably straw mat, on the soil just outside of the fence near the eastern return of the sheet pile wall.

5. Evaluate drainage conditions in the swale that runs along the eastern perimeter of the Site. Provide means for standing water to drain from area.

6. Review remedial action plans and scope of work to determine whether or not additional trees are to be planted along the river bank near the mudflat area.

7. Add a sign with EPA's contact information inside the main gate of the site.

8. Install a shim/wedge in the tieback located in the western bend in the sheet pile wall from the river toward the mudflat area.

9. Install stakes or other similar safety demarcation along the stone access road to the west of Building 7.

10. Paint monitoring wells with a bright color (yellow or orange) to increase visibility.

11. Establish vegetation over the disturbed area.

12. Repair cracks in Building 7 epoxy coating.

EPA and the State conducted a follow-up site visit on February 24, 2010. EPA and the State confirmed that the PRPs made efforts to address items #1, 3, 4, 5, 9, and 10 from the pre-final inspection. The remaining issues will be addressed by the final inspection or during operation and maintenance (O&M) for #12. Sediment erosion control features will need to be continually monitored and adjusted during O&M.

EPA and the State determined that the following RA activities were constructed and/or completed according to the revised remedial design:

- Excavated and backfilled upland areas CY-1, CY-2, SA-2, SA-3 and SA-4/5;
- Removed and properly disposed of the Southern Area underground storage tank;
- Assessed and properly addressed two additional underground storage tanks that were found during construction;
- Power washed and surface coated Building 7;
- Installed the sheet pile wall;
- Excavated near-shore sediments and backfilled with geotextile and R-3 stone in the Delaware River;
- Installed marine mattresses and buttress stone to cap sediments in the Delaware River;
- Installed the LNAPL trench;
- Installed six monitoring wells in the Southern Area;
- Covered the Southern Area with geotextile and 24-inches of cover soil (with a total 48-inches in the E4 area);

- Covered the Courtyard with geotextile and 12-inches of cover soil; and
- Posted PCB warning signs along the Delaware River.

No activities were conducted using removal authority at this site.

Institutional Controls

As stated in Section IX of the ROD, the Selected Remedy and Performance Standards: "Deed Restrictions: Deed restrictions shall be placed on the Metal Bank property prohibiting (1) the use of the land for residential and agriculture purposes; (2) the use of on-site groundwater for domestic purposes, including drinking water; and (3) excavation at depths that encounter the water table, contaminated soils and/or sediments beneath the soil cover, or compromise the stability of soil-covered areas along the Delaware River."

In September 2002, the City of Philadelphia recorded the deed restriction with the property records.

Redevelopment Potential

There are no known current redevelopment plans for the Site.

III. DEMONSTRATION OF CLEANUP ACTIVITY QUALITY ASSURANCE AND QUALITY CONTROL

EPA and the State reviewed the remedial action contract and construction for compliance with quality assurance and quality control (QA/QC) protocols. Construction activities at the site were determined to be consistent with the ROD, two ESDs, Revised Remedial Design plans and specifications, and Revised Remedial Design statement (Appendix B in the consent decree). The PRP construction contractor adhered to the approved construction quality control plan (CQCP). The construction quality assurance plan (CQAP) incorporated all EPA and State requirements. All confirmatory inspections, independent testing, audits, and evaluations of materials and workmanship were performed in accordance with the construction drawings, technical specification and CQAP. Construction quality assurance was performed by an independent firm retained by the PRP. During initial construction activities in July 2008, the EPA RPM and State regulators visited the site approximately twice per week to review construction progress and evaluate and review the results of QA/QC activities. However, due to the number and severity of construction issues, EPA representatives (Camp Dresser and McKee and/or the Army Corps of Engineers) were present nearly every day of construction. Deviations or non-adherence to QA/QC protocols, drawings, or specifications were properly documented and leveraged to have the construction completed in the proper manner.

The Quality Assurance Project Plan (QAPP) incorporated all EPA and State QA/QC procedures and protocol. EPA analytical methods were used for all confirmation and monitoring samples during RA activities. Sampling of soil, sediments, and water followed the EPA protocol *Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods*. EPA and the State determined that analytical results are accurate to the degree necessary to assure satisfactory execution of the RA.

IV. ACTIVITIES AND SCHEDULE FOR SITE COMPLETION

Construction completion at the Site shall be documented by the signature of this Preliminary Close-Out Report. All preliminary construction completion requirements for the Site have been met as specified in OSWER Directive 9320.2-09A-P. The following activities necessary to achieve site completion are expected to be completed according to the following schedule:

Schedule for Site Completion

Task	Estimated Completion	Responsible Organization
Complete Punch List Items	4/29/2010	PRP
Complete the Final Inspection	4/29/2010	EPA/PADEP
Approve Final Remedial Action Report	12/30/2010	EPA
Approve Final Closeout Report	9/30/2014	EPA
First Five-Year Review Report	7/07/2013	EPA
Deletion from NPL	9/30/2014	EPA

V. SUMMARY OF REMEDIATION COSTS

The original cost estimate to implement the remedial actions described in the ROD was $17,100,000. More detailed cost estimate documentation can be found in the Feasibility Study.

Actual RA construction and O&M costs are unknown at this time because the PRP has declined to share cost information with the EPA.

VI. FIVE-YEAR REVIEW

Pursuant to CERCLA section 121 (c) and as provided in the current guidance on Five Year Reviews [*Comprehensive Five-Year Review Guidance, OSWER Directive 9355.7-03B-P, June 2001*], EPA must conduct a statutory Five-Year Review because hazardous substances will remain on-site above health-based levels. Therefore, the Five-Year Review will be completed prior to July 7, 2013, five years after the remedial action start date.

K Hodgkiss

Kathryn Hodgkiss, Acting Director
Hazardous Site Cleanup Division

3/23/10
Date